

~~Key Attach means~~ Jan. 12, 1928

283,318 COMPLETE SPECIFICATION

1 SHEET

72
370

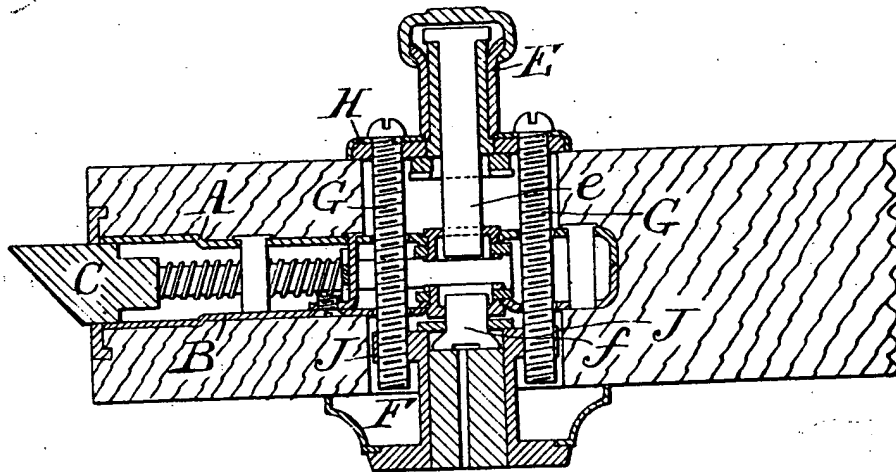


Fig. 1.

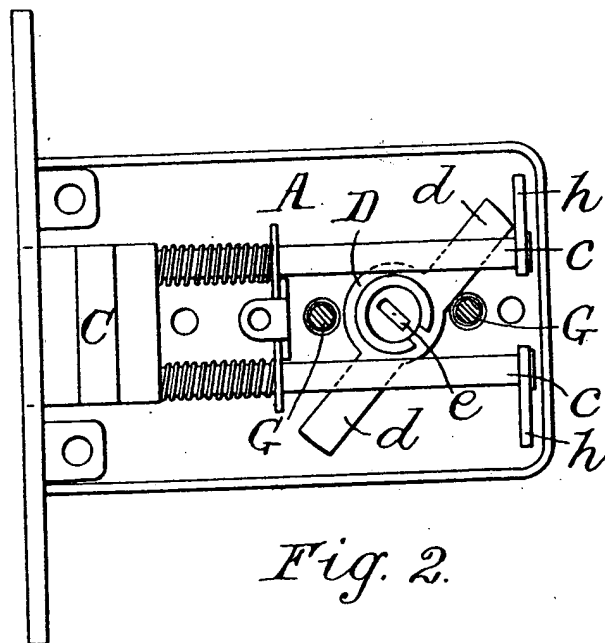


Fig. 2.

[This Drawing is a reproduction of the Original on a reduced scale.]

through the rose H of the handle E, through holes in the latch case halves A and B, and screwing into lugs J J of the pin tumbler mechanism.

5 The advantage of the arrangement, in the case of a mortice latch or lock is that it greatly cheapens the construction, and the advantage in the case of a rim or flush latch or lock is that the screws being 10 strongly supported by the casing prevent the turning of the key-operated mechanism.

In order to adapt the latch or lock bolt casing, whether of the rim, flush or mortice type, to allow of the long screws 15 passing right through, the construction of the follower has to be modified somewhat from the usual pattern to prevent the horns of the follower from fouling the 20 screws.

It will be seen that the holes for the screws G G are placed fore and aft of the follower centre, while the horns *d d* project the one up and the other down, and 25 they are so arranged that, when in their extreme positions in either direction, they are clear of the screws G G. The usual rods *c c* of the latch or lock bolt and the usual plates *h h* on the rear ends thereof 30 are also arranged so that they do not foul the screws.

In the case of a flush lock the construction may be very similar, the long screws still passing right through the 35 latch casing and screwing into lugs of the pin tumbler mechanism.

We are aware that in the case of a mortice lock operated by handles from each side of the door, and in which one

of the handles is provided with locking 40 and unlocking means, the handles have been held in position by roses which have been secured by long screws passing through the one rose, through the casing, 45 and screwing into the other rose.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A latch or lock in which the key-operated mechanism is separate from the latch or lock casing characterised by the feature that the key-operated mechanism is secured in relation to the latch or lock casing by means of long screws which pass right through the said casing and screw into the key operated mechanism and thus prevent the latter from being turned 55 bodily by means of an implement.

2. A latch or lock as in Claim 1 and being of the mortice type, characterised by the feature that the screws which pass through the casing and screw into the key-operated mechanism serve also to 60 secure the handle to the inner side of the door.

3. A latch or lock having its pin tumbler key-operated mechanism secured in relation to the latch casing substantially as described with reference to the drawings herewith. 70

Dated this 8th day of September, 1927.

STEPHEN WATKINS, SON & GROVES,

Chartered Patent Agents,
Metropolitan Chambers, Wolverhampton,
Agents for the Applicants.

the general internal construction may be the same as for a rim or flush latch or lock and the handle may connect with the follower by means of the usual flat bar.

Dated this 8th day of December, 1926.
STEPHEN WATKINS, SON & GROVES,
 Chartered Patent Agents,
 Metropolitan Chambers, Wolverhampton,
 Agents for the Applicants.

COMPLETE SPECIFICATION.

Improvements relating to Pin Tumbler Latches or Locks and other Latches and Locks in which the Key Operated Mechanism is Separate from the Casing in which the Main Latching or Locking Bolt is Situated.

5 We, E. TONKS AND SONS LIMITED, of Temple Works, Willenhall, in the County of Stafford, a company incorporated under the laws of Great Britain, and CHARLES ALFRED TONKS, of the company's address, a subject of the King of Great Britain, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

15 This invention relates more especially to latches and locks of the pin-tumbler type in which the key-operated mechanism is situated on the outer surface of the door, while the casing, which carries the main latch or locking bolt, is constituted either as a rim or flush casing affixed to the inner surface of the door, or else as a mortice casing let into the door. The invention is, however, applicable also to other latches and locks where the key-operated mechanism is separate from the main latch or lock case.

20 In the case of a mortice latch or lock of this type, the usual practice has been first to insert the latch or lock case in the door, and then insert the key-operated mechanism from the outside through a suitable hole, and the mechanism has been provided on its inner end with a large diameter screw thread to screw into a corresponding thread in the latch or lock case, and the key-operated mechanism has afterwards been prevented from turning in relation to the latch or lock case by a screw-pressed slider thereof engaging with a notch in the surface of the screw thread. Such construction is relatively expensive, and somewhat difficult to fit.

45 In the case of a rim latch or lock, it has been usual to drill a single hole through the door, to insert the key-operated mechanism from the outer face of the door, with a shoulder thereof resting against the outer surface, and to hold it in position by two long screws which pass

through a plate at the inner surface of the door and screw into two lugs of the mechanism. The latch or lock casing has then been separately attached to the inner surface of the door. With such an arrangement, there is, however, the disadvantage that the key-operated mechanism can, with a suitable implement, be turned in the door, so that unlocking can be effected without the use of the key.

Now this invention has for its object to provide securing means which overcome the objections mentioned above.

According to this invention, the key-operated mechanism is secured within the outer end of the usual hole in the door, by means of long screws which screw into the key operated mechanism, and pass through the latch or lock casing, whereby the key operated mechanism is prevented from being bodily turned in the door. Preferably, especially in the case of a mortice latch or lock, the screws pass through the mounting for the handle on the inner surface of the door, but their heads may be covered with a suitable rose. They may, however, if desired, pass through any suitable plate on the inner surface of the door.

In order that the invention may be clearly understood, a convenient application to a pin-tumbler mortice latch is described with reference to the drawings herewith; of which:—

Figure 1 is a sectional plan view; and, Figure 2 is a view of the inner half casing for the latch bolt, the latter being shown in the drawn back position.

In these drawings:—A is the inner half of the latch casing, and B the outer half thereof. C is the usual latch bolt operated by arms *d* of a follower D, the latter being connected with a handle E on the inside of the door by a plate *e*, and with pin-tumbler mechanism F on the outside of the door by a plate *f*.

G G are two long screws passing

55

60

65

70

75

80

85

90

95

[Handwritten scribbles]

Dec 20
E. Tonks

PATENT SPECIFICATION

283,318

Application Date: Dec. 9, 1926. No. 31,234/26.

Complete Left: Sept. 9, 1927.

Complete Accepted: Jan. 12, 1928.



PROVISIONAL SPECIFICATION.

Improvements relating to Pin Tumbler Latches or Locks and other Latches and Locks in which the Key Operated Mechanism is Separate from the Casing in which the Main Latching or Locking Bolt is Situated.

We, E. TONKS AND SONS LIMITED, of Temple Works, Willenhall, in the County of Stafford, a company incorporated under the laws of Great Britain, and CHARLES 5 ALFRED TONKS, of the company's address, a subject of the King of Great Britain, do hereby declare the nature of this invention to be as follows:—

10 This invention relates more especially to latches and locks of the pin tumbler type in which the key-operated mechanism is situated on the outer surface of the door, while the casing, which carries the 15 main latch or locking bolt is constituted either as a rim or flush casing affixed to the inner surface of the door, or else as a mortice casing let into the door. The invention is however applicable also to 20 other latches and locks where the key operated mechanism is separate from the main latch or lock case.

25 In the case of a mortice latch or lock of this type, the usual practice has been first to insert the latch or lock case in the door, and then insert the key-operated mechanism from the outside through a suitable hole, and the mechanism has been 30 provided on its inner end with a large diameter screw thread to screw into a corresponding thread in the latch or lock case, and the key operated mechanism has afterwards been prevented from turning 35 in relation to the latch or lock case by a screw pressed slider thereof engaging with a notch in the surface of the screw thread. Such construction is relatively expensive, and somewhat difficult to fit.

40 In the case of a rim latch or lock, it has been usual to drill a single hole through the door, to insert the key-operated mechanism from the outer face of the door, with a shoulder thereof resting against the outer surface, and to hold it 45 in position by two long screws which pass through a plate at the inner surface of the door and screw into two lugs of the mechanism. The latch or lock casing has then been separately attached to the inner surface of the door. With such an arrange-

[Price 1/-]

ment, there is, however, the disadvantage 50 that the key-operated mechanism can, with a suitable implement, be turned in the door, so that unlocking can be effected without the use of the key.

Now this invention has for its object to 55 provide securing means which overcome the objections mentioned above.

According to this invention, the key-operated mechanism is secured within the 60 outer end of the usual hole in the door, by means of long screws which screw into the case of the mechanism, and also pass through the latch or lock casing. Preferably, especially in the case of a mortice 65 latch or lock the screws pass through the mounting for the handle on the inner surface of the door, but their heads may be covered with a suitable rose. They may, however, if desired, pass through any 70 suitable plate on the inner surface of the door.

The advantage of the arrangement, in the case of a mortice latch or lock, is that it greatly cheapens the construction, and 75 the advantage in the case of a rim or flush latch or lock is that the screws being strongly supported by the casing, prevent the turning of the key operated mechanism.

80 In order to adapt the latch or lock bolt casing, whether of the rim flush or mortice type, to allow of the long screws passing right through, the construction of the follower has to be modified somewhat from 85 the usual pattern to prevent the horns of the follower from fouling the screws.

According to this invention, the holes 90 for the screws are placed fore and aft of the follower centre, while the horns project the one up and the other down, and they are so arranged that, when in their extreme positions in either direction, they are clear of the screws passing through the 95 holes. The usual two rods of the latch or lock bolt and the usual plates on the rear ends thereof are also arranged so that they do not foul the screws.

In the case of a mortice latch or lock